

IN THE CLAIMS:

Claims 1 - 33 (cancelled)

34. (New) An apparatus for removing clots from the vasculature of a patient, comprising:

an elongated catheter member with a tubular wall having an exterior surface; and  
a plurality of clot retrieval members defined on said exterior surface of said tubular wall of said elongated catheter member, said plurality of clot retrieval members being formed from a shape memory material having a glass transition temperature ( $T_g$ ) above body temperature, the plurality of clot retrieval members being connected to said elongated catheter member, said clot retrieval members being movable from an initial compressed configuration to an expanded configuration extending outwardly from the elongated catheter member to trap and hold clots within the vessel, wherein said clot retrieval members are initially compressed axially to extend substantially contiguously with the surface of the tubular wall, the elongated catheter member being adapted to be placed within a vessel of the patient when the clot retrieval members are in the compressed configuration and removed from the vessel when the clot retrieval members are in the expanded configuration, whereby clots trapped by the clot retrieval members can be withdrawn from the vessel.

35. (New) An apparatus for removing clots from the vasculature of a patient, comprising

an elongated catheter member; and

at least one clot retrieval member connected to said elongated catheter member, said at least one clot retrieval member being movable from an initial compressed configuration to an expanded configuration extending outwardly from the elongated catheter member to trap and hold clots within the vessel, the elongated catheter member being adapted to be placed within a vessel of the patient when the at least one clot retrieval member is in the compressed configuration and removed from the vessel when the clot retrieval member is in the expanded configuration, whereby clots trapped by the at least one clot retrieval member can be withdrawn from the vessel, said at least one clot retrieval member being formed from a shape memory material and having a glass transition temperature ( $T_g$ ) above body temperature, said at least one clot retrieval member being connected to the elongated catheter member, with said at least one clot retrieval member having an initial compressed configuration in which said at least one clot retrieval member is compressed radially against the surface of the elongated catheter member and an expanded configuration in which said at least one clot retrieval member projects outwardly from the surface of the elongated catheter member, whereby said at least one clot retrieval member can trap and hold a blood clot.

36. (New) The apparatus of Claim 35, wherein said shape memory material has a desired compressed configuration at a temperature appropriate for introduction into the body via a catheter, and upon heat activation, will take on an expanded configuration for trapping and holding clots.

37. (New) The apparatus of Claim 35, wherein said shape memory material is selected from the group consisting of polyurethane, polyethylene, polyethylene terephthalate, and high density polyethylene.

38. (New) The apparatus of Claim 35, wherein said shape memory material comprises a nickel titanium alloy that can be heat treated to have shape memory behavior.